

ABSTRACT

A multi-mode wireless device on a single substrate includes an analog portion and
5 a digital portion integrated on the single substrate. The analog portion includes a cellular
radio core; and a short-range wireless transceiver core. The digital portion integrated on
the substrate includes a reconfigurable processor core coupled to the cellular radio core
and the short-range wireless transceiver core, the reconfigurable processor adapted to
handle a plurality of wireless communication protocols. The digital portion also includes
10 a high-density memory array core coupled to the reconfigurable multi-processor core.